

Title:	Environmental innovation Projects: Evidence Report
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For the attention of:	[REDACTED]

1. Introduction

Affinity Water has a programme to deliver a number of environmental innovation projects in AMP7 to improve its customers' knowledge, evidence of water use, and need for water efficiency. The goal of the programme is to bring together sector experts, charities, community and environmental groups and other stakeholders to trial the delivery of a range of innovative multi-party projects, linked to different environmental themes and water use behaviours.

As part of the programme's delivery process, a project is considered complete when a report has been compiled from an independent party, which has examined and verified the benefits, after the project has ended.

This report comprises the independent assessment of benefits for three projects: New Developments; Water Efficiency in Affordable Homes, and Education Methods.

The assessment has been made by examining the final reports for each project, conducting interviews with project partners, and examining additional evidence and feedback.

2. The Projects

2.1. Project: New Developments

The purpose of this project is to support competitive markets within the water industry and deliver reduced PCC across a new development by developing a New Appointments and Variations (NAVs) delivery model.

A NAV organisation is a limited company which provides a water and/or sewerage service to customers in an area which was previously provided by the incumbent monopoly provider. A NAV organisation is thus one that has replaced another as the appointee for a specific geographic area.

This project entailed Affinity Water working with two NAVs to develop a framework which makes it easier for collaborative working. The project developed a framework for a new development site and encompassed legal, regulative and operational aspects of working.

The aims of the project were to:

1. Stimulate environmental innovation through (a) the use of an innovative delivery model and (b) install energy efficient infrastructure such as grey water recycling; and
2. Reduce PCC by abstracting a reduced volume of water at the new development site.

The success in meeting these objectives was mixed. The first aim was successfully met and enabled relationships to be established that gave valuable insights into new ways of working. The project was not able to achieve the second objective, due to budgetary constraints and a realisation of the scale of the challenge. However, the learnings from the project overall has led to a successful application for funding from Ofwat's Innovation Fund. This funding will enable a larger, more ambitious project to happen, which will seek to progress and deliver the original aims. Further to this, unexpected or additional benefits were realised through the delivery of the project. These benefits are set out in Table 1.

On 18 May 2022 an interview was held with [REDACTED], Head of Account Management at Albion Water, which was one of the NAVs that took part in the project. From her perspective, the project was successful and has great potential to further enhance and build relationships between established water companies and the relatively small and non-geographically based NAV organisations. She commended Affinity Water for taking a non-parochial approach on seeking ways for improvement. Engaging with NAVs allows mutual knowledge sharing and exchange that will benefit not only Affinity Water customers but potentially people in other areas, given NAVs are not restricted to a particular location.

Table 1: Benefits arising from the project, both expected and additional:

	Benefits	Achieved?
Primary expected benefits	• Drive efficiencies	✓
	• Improved D-MeX scores as a result of customer satisfaction	
	• Reduced PCC	
	• Support our environmental protection targets and set clear ways of working with NAV customers	✓
Additional primary benefits	• Offer alternative financial mechanisms to support competition in the NAV market	✓
Secondary expected benefits	• Address Ofwat's findings of lack of support for the development of the NAV market (level of NAV activity is lower than expected in our area)	✓
	• Generate benefits for customers through lower prices, improved service, environmental benefits, as well as offering greater choice of supplier for developers and large user customers	
	• Clear links to our corporate purpose and areas of focus for AMP7	✓
	• Utilises alternative solutions such as grey water treatment and reuse	
	• Work with local stakeholders to engage on shared priorities and long term sustainability	✓
	• Reputational benefit within the water industry	✓
Additional secondary benefits	• Strengthen relationships with NAV partners	✓

It is [REDACTED] view that the collaboration between Affinity Water and Albion water was instrumental in achieving funding from the Ofwat Innovation Fund. It is her experience that NAV organisations find it difficult to win funding to test or roll out new or innovative approaches due to their relatively small size and ability to influence. By collaborating with a large company that has an established position in the water sector, joint ideas of exploring potential ways to achieve water neutrality through different means was considered on a more serious note by the regulator and led to a successful funding application. In addition, the fact that a large company like Affinity Water is self-funding pilot innovation projects in these areas or topics raises awareness to other stakeholders in the industry who may not otherwise treat such schemes with a similar level of attention should they be rolled out by smaller companies or organisations, such as NAVs. In this way, by being seen to support and actively drive through innovation the partnership will continue to help to move the whole industry forward towards the twin goals of increasing water efficiency and minimising adverse effects on the environment.

2.2. Project: Water Efficiency in Affordable Homes

This project had two aims: (1) to establish social housing partnerships to develop and pilot social housing retrofit policies, and (2) deliver sustainable water use reductions in social housing properties. Affinity Water estimates that a saving of 4 million litres of water has been made through the project's efficiency activities. The activities reached a significant portion of customers classified as vulnerable, which is another benefit.

This project entailed Affinity Water working collaboratively with external partners and stakeholders active in social housing. Affinity Water had little experience of direct working with such partners in the sector before and has, through this project, realised the benefits of liaising with the sector, as evidenced by the volume of water savings that have been estimated arising from the installation of water efficiency measures. There has also been a deeper understanding of the capacity and capability of such partners to be involved in such projects, as well as partner concerns over the disruption to everyday, planned activities, and increased contact with tenants.

From the perspective of Affinity Water, working in this way has enabled them to directly reach a section of the customer base which traditionally has been difficult. It has also revealed insights into the difficulties of retrofitting water efficiency devices into social housing accommodation. This has led to actions currently being implemented, and also planned in the future, to influence the design of water related fixings and fittings such that they can be more easily installed during routine maintenance updates or upgrades. These insights will be very useful for the continued roll out and similar projects and deepening of relationships.

Evidence of correspondence between the Affinity Water team and different social housing partners in the project have been seen that demonstrate the nature of the collaborative working relationship spanning the planning and roll out of efficiency measures, social media and outreach activities, and

wider awareness raising of the need for water efficiency - not only to tenants but also to the staff of the partner organisations.

An interview was held with [REDACTED], Head of Housing Operations at Welwyn Hatfield Borough Council on 18 May 2022. Stuart's role involves managing tenancies and providing support and assistance to tenants. As such, the project provided a useful service to tenants. The actions undertaken by the project will have a directly positive effect on tenants as the installed water efficiency measures will help reduce their water bills.

[REDACTED] indicated the positive attitude that Affinity Water adopted when working with his organisation and other social housing stakeholders to better understand their situation and challenges, in order to ensure the project delivered meaningful change. Discussions were held at the beginning of the project to manage expectations on what the project could deliver in the timescale, with the project scope and approach being shaped to accommodate the available time and resources off the council. Activities to retrofit water efficiency interventions were planned to integrate with existing work processes or maintenance and responsive repairs. schedules in the easiest manner possible.

It is apparent that a collaborative and co productive approach was adopted from the onset of this project in order that the stakeholders could be involved at a level which matched their available time and resource, and that a balanced partnership was established.

The project has been instrumental in raising awareness of many different aspects which are crucial for helping customers and social housing to become water efficient and thus reduce expenditure on bills.

It is understood that Affinity Water wish to continue these interactions and interventions alongside its business-as-usual water efficiency activities, in order to ensure the specific knowledge gained through this project is not lost and the work can continue. To this end, [REDACTED] commented he is aware of ongoing discussions and interactions between Affinity Water and his colleagues to continue working together and roll out new phases of activity.

2.3. Project: Education Methods

This project sought to find a way to connect with local communities via an engaging, new, educational approach that would help people learn about the water cycle and the need for home water efficiency.

An interactive game was developed using the Minecraft platform that embedded core learning modules amongst a fun gaming experience. The game was tested with a Children's Steering Group both in person and online, and further developed based on the feedback received.

Affinity Water intend to roll out the game to customers via existing engagement activities both through direct invitation and general advertising, as well as actively bringing the game to the attention of people attending the local Rickmansworth Festival.

The nature of the game is such that Affinity Water can make it available to different groups of customers, or indeed non-customers. It can be expanded, redesigned, or changed to keep it up to date and tailored to meet bespoke needs. The key benefit of the game is that it is built on the popular Minecraft platform which is familiar and initiative to play. The ethos of the approach is to deliver education and embed knowledge embed learning through play.

It has not been possible to directly speak with parents of the children invited to take part in the testing project. Reliance is placed therefore on feedback both set out in the project document and supplied by the project team. The feedback is very complimentary and enthusiastic, which suggests that the game will indeed act in a beneficial way to educate people on the water cycle, the environmental reasons for water efficiency, and what individuals and households can do to become water efficient.

3. Conclusion

Having examined the evidence that supports each project, it is concluded that the projects have indeed generate many benefits that would not have arisen otherwise. In some cases, the expected benefits at the start of the project were realised, and some were not, as a result of understandable reasons. Further, there were some unexpected benefits arising. This is the nature of such innovation projects, where the outcome cannot be, nor should it be, completely predicted as this may prevent the setting of ambitious goals and negate the discovery of serendipitous opportunities.

Affinity Water is commended for undertaking these projects, and embedding the knowledge gleaned from them into aligned activities in order to maximise the legacy of the work.